

## ABSTRACT OF THE DISCLOSURE

A fluid treatment system consists of a light source for providing light and a flexible treatment chamber having an input port and an output port, at least a portion of the flexible treatment chamber positioned to receive the light. The at least the portion of the flexible treatment chamber is transmissive to at least 1% of the light having at least one wavelength within a range of 170 to 2600 nm and the flexible treatment chamber is adapted to allow a fluid to be treated to be flowed via the input port therethrough at a specified rate and out the output port. The light source illuminates the fluid as it flows through the flexible treatment chamber in order to deactivate pathogens within the fluid. In some embodiments, the light source is a pulsed light source for emitting short duration, pulses of polychromatic light.